REMARKS

Claims 1-4, 10-12, 15 and 16 are pending in this case. Claims 1 and 10 are amended by this response. New claims 19 through 22 are added by this response. Support for the amendments is as follows: Claims 1 and 10 (Specification p. 12, l. 15-17; p. 13, l. 4-7), Claims 19 and 20 (Specification p. 8, l. 17-20) Claims 21 and 22 (Specification p. 8, l. 23-p. 9, l. 3; p. 12, l. 16-p. 13 l. 7). No new matter has been added.

Claims 4/1, 4/2, 4/3 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Nichol (U.S. Patent No. 3,313,218) and Nagata et al (U.S. Patent No. 5,332786). (Office Action p. 2)

Claim 1 has been amended to include the requirement of "contacting the upper surface of the substrate from above with and the applicator roller to form an adhesive layer on substantially the entirety of the substrate with the hot melt adhesive." (Claim 1) Neither of the cited references disclose or suggest applying adhesive to the upper surface of a substrate from above. Nichol discloses a glue pot positioned below the substrate from which glue is drawn up onto the glue applying wheel so that the surface thereof can apply the liquid glue to the surface of a flap located adjacent thereto. (Nichol, col. 4, l. 15-26, and Fig. 2) Nagata does not disclose a substantive coating method.

Neither cited reference disclose or suggest applying the adhesive layer on substantially the entirety of the substrate. In the method of Nichol, the hot melt glue is coated merely at the side positions of flaps. (Nichol, Fig, 3) Nagata does not disclose a substantive coating method. Therefore, neither reference, alone or in combination, disclose or suggest the elements of the

claimed invention. Applicants respectfully request withdraw of the rejection under 35 U.S.C. 103(a).

Claims 1-3, 4/1, 4/2, 4/3, 10-12, 15, and 16 are rejected under 35 U.S.C 103(a) as being unpatentable over the references as set forth above further taken in view of Schaefer (U.S. Patent No. 4,045,946). (Office Action p. 2)

The placement of the adhesive in Schaefer is best viewed in Figure 4. The pool of adhesive is between and above the doctor roll 26 and the applicator roll 25. (Schaefer, Figs. 3 and 4, col. 5, l. 3-38) However, unlike the claimed invention, the pool of adhesive is below the item on which the adhesive is being applied, which in Schaefer is a web. (Schaefer, col. 5, l. 39-52) The adhesive is applied to the web in Schaefer when a fin 33 of the dauber roll 32 rotates and deflects the web downwardly into contact against the applicator roll 25. (Schaefer, col. 5, l. 39-52) Schaefer does not disclose or suggest applying the adhesive to the upper surface of the web as it travels through the apparatus as is performed in the claimed invention.

Neither Nichol nor Schaefer disclose that an adhesive is coated on the entirely of the substrate. In the method of Nichol, the hot melt glue is coated merely at the side positions of flaps. (Nichol, Fig, 3) In the method of Schaefer, a stripe of adhesive is merely formed at the predetermined interval on a web, and a filling material is sealed at the sealing station in the web using the stripe of adhesive. (Schaefer, col. 4, l. 39-49) Nagata does not disclose a substantive coating method. However, claims 1 and 10, as amended, claim forming an adhesive layer on substantially the entirety of the upper surface of the substrate with the hot melt adhesive. Accordingly, none of the references teach, suggest, or disclose the elements of the adhesive coating of the claimed invention.

Schaefer discloses that a hot melt adhesive is applied to the underside of a web, and the adhesive is supplied from a pool of adhesive, which is formed between the doctor roller and the applicator roller. (Schaefer, col. 5, l. 3-17) Unlike the claimed invention, wherein the wooden substrate is used as a substrate, Schaefer uses a web as a substrate. (Schaefer col. 5, l. 39-49) When the web is used as a substrate, it is necessary to convey it while stretching it requiring extra apparatus and steps. If stretching is not strictly maintained after a thin adhesive is formed uniformly on a stretched web, it seems that the coated web no longer maintains the thin adhesive layer uniformly. Further, if the movement of the web is not conducted sufficiently, an unpreferable wrinkle may be formed on the web. The method and application of Schaefer is so unlike the claimed invention that one of ordinary skill in the art would not look to Schaefer when considering the problems solved by the claimed invention and looking to improve the anchor effect and smoothness of the resulting adhesive on a wooden substrate.

Even if the adhesive supplying system of Schaefer is applied to the coating method of Nichol wherein rotating speeds are different from each other between the conveyed speed of a substrate and the rotating speed of a roller, the resulting coated material obtained by the combination of the references is different from those of the present invention as described above.

The cited references do not disclose or suggest, either alone or in combination, the elements of claims 1 and 10 of the claimed invention. Claims 2-4, 11-12, 15-16, and 19-22 are dependent on claims 1 and 10. Accordingly, the cited references, either alone or in combination, do not disclose or suggest the elements of claims 1-4, 10-12, 15-16, and 19-22. Applicants respectfully request withdraw of the rejection under 35 U.S.C. 103(a).

Response to Arguments (Office Action p. 4)

We note that the Office Action raises additional arguments regarding the term upper and the self leveling effects imposed on the adhesive. The Applicants respectfully disagree with the points raised on these matters.

The Office Action on page 4 described:

> "(1) the term upper is a relative term (i.e. upper in comparison to what) where the hot melt in accordance with the references to Nichol and Schaefer were applied onto the exposed surface of the substrate on one side thereof where that side clearly could constitute the "upper surface in its final use." (Office Action p. 4)

Claims 1 and 10 are amended by this response to further clarify the distinction between the cited references and the claimed invention. The amended claims 1 and 10 clarify that the "upper surface" of the substrate of the claimed invention, which is contacted with the applicator roller, is opposite to those of the cited references. The side of the surface of the substrates contacted by the applicator roller in the cited references is different from the side contacted in the claimed invention. None of the cited references disclosed such a characteristic of the claimed invention wherein the substrate is contacted with the applicator roller from above.

Furthermore, claims 1 and 10 have are amended by this response such that an adhesive layer is formed on substantially the entirely of the upper surface of the substrate with the hot melt adhesive.

The Office Action on page 4 described

> "(2), the admitted prior art expressly describes the self leveling effect imposed upon the adhesive used in the prior art process of coating with the applicator roller and the metering roller, where "self-leveling" clearly would not take place if the coating was applied to the underside of the wood substrate as gravity would impart self leveling only upon an adhesive material applied on the upper surface of the substrate with the applicator rollers." (Office Action p. 4)

The Applicants acknowledge several factors that contribute to a self-leveling effect of the hot melt adhesive as applied to a substrate including gravity, viscosity of the adhesive, the surface tension of the substrate, etc. However, the application of the adhesive coating conducted from the underside of the substrate in the cited references is unpreferable. To achieve the desired results of the claimed invention including excellent penetration or anchor effect of an adhesive into a wooded substrate, controlling a coated amount of an adhesive, treating a coated substrate and the like, it is necessary to apply the hot melt adhesive from above the substrate as disclosed in the claimed invention.

In any event, no cited reference disclose the content of new claims 19-22. No cited reference discloses that comprising the step of bonding said adhesive layer formed on the substrate with a laminate, which is selected from the group consisting of a film, a decorative paper, a laminate material and metallic paper and laminating material, to form a architectural material. (Claims 19 and 20) Also, no reference discloses that the substrate is substantially conveyed at a predetermined speed horizontally, while the substrate is conveyed and contacted with the applicator roller. (Claims 21 and 22)

The cited references do not disclose or suggest, either alone or in combination, the elements of claims 1 and 10 of the claimed invention. Claims 2-4, 11-12, 15-16, and 19-22 are dependent on claims 1 and 10. Accordingly, the cited references, either alone or in combination, do not disclose or suggest the elements of claims 1-4, 10-12, 15-16, and 19-22. Applicants respectfully request withdraw of the rejection under 35 U.S.C. 103(a).

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Dated: April 22, 2008

Respectfully submitted,

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